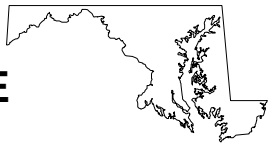
PREVENTING HEART DISEASE AND STROKE



Definition

Coronary heart disease and stroke (cerebrovascular disease) are part of the broad category of cardiovascular diseases or diseases of the heart and circulatory system.

Problem

Heart disease and stroke are leading causes of death and disability in Maryland for both men and women. Coronary heart disease, which may result in heart attack, accounts for more than half of all cardiovascular disease. Stroke is the number three cause of death in Maryland. Both heart disease and stroke are significant contributors to increasing health care costs. In the United States the cost associated with medical care, lost productivity, and lost future wages due to cardiovascular disease is projected to be $286 billion for 1999.

Determinants

Heart disease and stroke deaths rise significantly after age 65. The death rate is generally higher in men than in women and in African-Americans than in whites. Age, sex, race, and family history are non-modifiable risk factors for cardiovascular disease.

Percent of Adult Population Reporting Factors Related to Heart Disease and Stroke In Maryland, 1990-1998

Risk Factor	1990 Percent	1997/98 Percent
High blood pressure	20.6	23.8
High blood cholesterol	25.9	28.6
Obesity	12.0	20.5
Overweight	31.1	35.0
Fruit/Vegetable intake	N/A	69.9
Physically inactive	30.0	20.3
Irregular activity	30.8	30.1
Regular activity	30.1	33.2
Regular, sustained activity	7.8	16.4

Source: Maryland Behavioral Risk Factor Surveillance System, 1990-1998

High blood cholesterol, high blood pressure, cigarette smoking, physical inactivity, and obesity are all risk factors for both heart disease and stroke. An additional risk factor for heart disease is diabetes. Lifestyle modifications to change these risk factors are a major strategy for preventing heart disease and stroke in the population. Maintaining a healthy weight, increasing physical activity, and making dietary modifications to decrease fat and sodium while increasing fruits, vegetables, and low-fat dairy foods can lower blood pressure. Losing weight, if overweight, increasing physical activity, and consuming a diet low in total fat, saturated fat, and dietary cholesterol can lower blood cholesterol.

Preventing heart disease and stroke in Maryland requires behavioral changes, beginning in childhood, to achieve healthy diet, maintain healthy weight, and healthy levels of physical activity.

Disparities

Data from the *Maryland Vital Statistics Annual Report 1997* confirm that heart disease deaths in Maryland adults are highest for men; higher for African-American men than for white men; and higher for African-American women than for white women. In *Healthy People 2010,* the Department of Health and Human Services reports heart disease mortality rates have declined, but the decline is leveling off as the population ages.

Data from the *Maryland Vital Statistics Annual Report 1997* show stroke death rates to be highest in Maryland for African-Americans and are higher for African-American males than for African-American females. White males have a lower stroke death rate than African-American women but a higher rate than white females. In *Healthy People 2010,* the Department of Health and Human Services reports the decline in stroke deaths has occurred primarily because of improvements in detecting and treating high blood pressure.

Estimates of prevalence of risk factors for the population of Maryland in this heart disease and stroke report are all based on data from the Behavioral Risk Factor Surveillance System (BRFSS) for the years 1990 through 1998. Data from random sample surveys are weighted to reflect age, sex, and race of the population of Maryland based on census reports.

The latest BRFSS data on high blood pressure and high blood cholesterol levels show a slight increase in awareness and a disparity between African-Americans and whites. In 1997, 24% of the population of Maryland reported being told by a health professional that their blood pressure was high. A higher percentage of women (25%) were aware of having high blood pressure than were men (23%). African-Americans reported having high blood pressure more often than whites did, 30% vs. 23% respectively. Based on data from the National Center for Health Statistics only 11% to 25% of people with high blood pressure meet the recommended guideline for blood pressure control of 140/90 mm Hg.

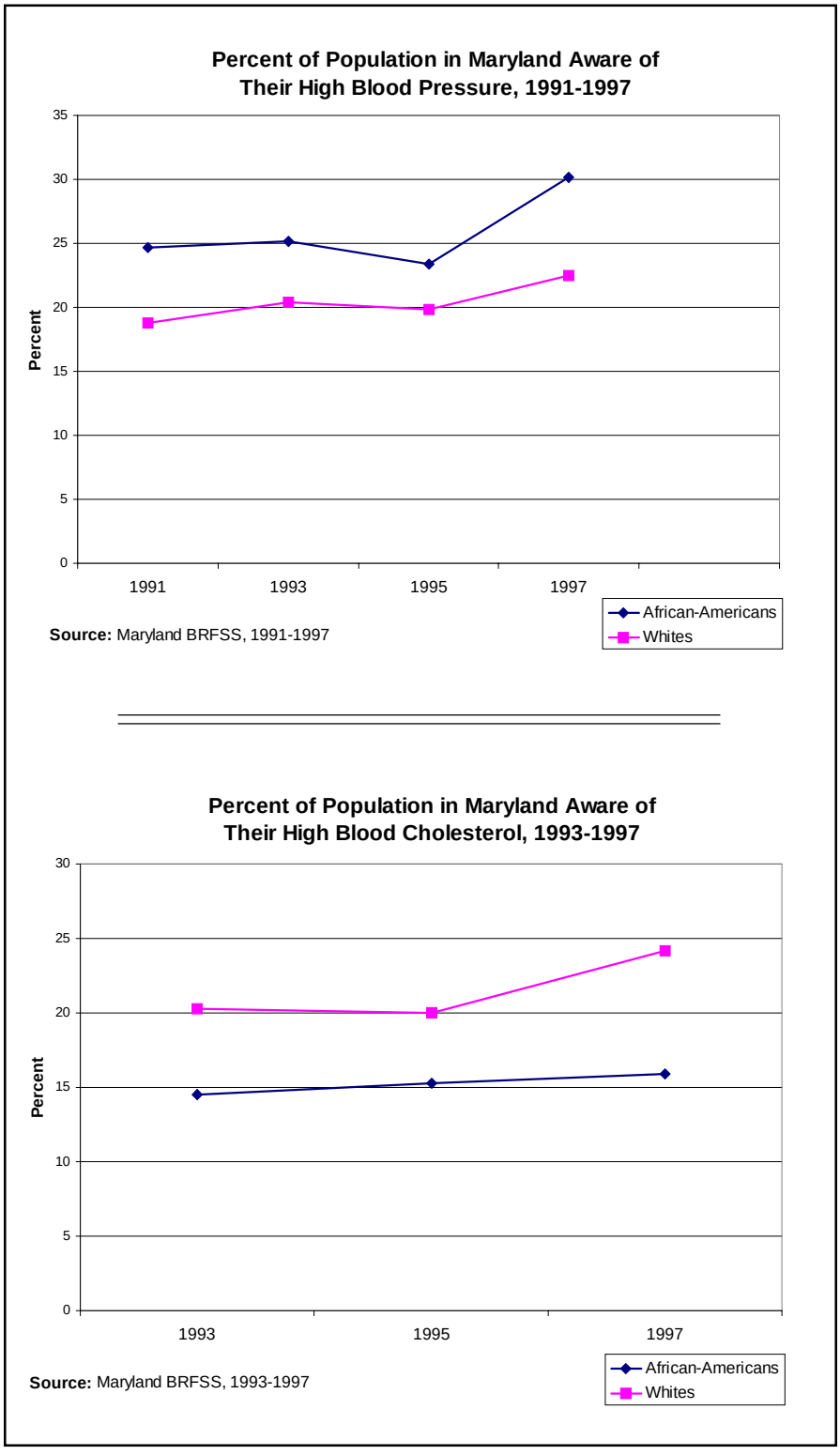
Also in 1997, 75% of the population of Maryland reported having their cholesterol checked within the previous five years and 29% had been told by a health professional that their blood cholesterol level was high. The awareness of high blood cholesterol is nearly identical for men and women. Thirty-one percent of white adults report having been told they have high blood cholesterol compared to only 22% of African-American adults.

Trends for obesity and overweight clearly show that Maryland residents are growing heavier. Obesity is defined as a Body Mass Index (BMI) of 30 or more; overweight is defined as a BMI of 25.0 to 29.9. [Body Mass Index = Weight (kg) /height (meters).] Between 1990 and 1998 the percentage of the population identified as being overweight increased from 31% to 35%. The proportion identified as obese jumped from 12% to almost 21%.

Obesity prevalence is about the same for males and females. A much larger percentage of African-Americans are obese (31%) compared to white adults (17%). More men (44%) than women (26%) are *overweight*. More African-Americans than whites are overweight, although the gap is small (38% vs. 34%).

The percentage of the population consuming five or more servings of fruits and vegetables per day, rose, between 1992 and 1998, from 21% to 30%. African-American and white women report similar intakes. Men consistently lagged behind women in reported fruit and vegetable consumption. Among of African-American men, 23% report consuming five or more servings of fruits and vegetables a day, compared to 26% of white men.

The population of Maryland is becoming more physically active, but the percentage reporting regular physical activity is relatively small. Between 1990 and 1998, the prevalence of regular physical activity increased from 30% to 33% while the prevalence of regular, vigorous physical activity increased from 8% to 16%. *Regular activity* is defined as activity three or more times per week for 20 or more minutes per session at less than 50% cardiorespiratory capacity; *regular vigorous activity* is activity three or more times per week, 20 or more minutes per session, at more than 50% of cardiorespiratory capacity.



In 1998 more women than men reported inactivity (21% vs. 19%); regular activity (34% vs. 33%); and regular, vigorous activity (17% vs. 15%). More men (33%) than women (28%) reported irregular activity. *Physical inactivity* is defined as no leisure-time physical activity; *irregular activity* as some activity but less than three times per week or less than 20 minutes per session.

The prevalence of inactivity and irregular activity reported in 1998 is higher among African-Americans than among whites, being 26% vs.18% and 32% vs. 30% respectively. African-Americans also report less regular activity than whites (30% vs. 36%) and less regular, vigorous activity than whites (13% vs. 17%).

Data on the prevalence of risk factors is not available for Maryland youth. Autopsy studies (Heald, 1990) reported in *Medical Clinics of North America* have shown that atherosclerosis already is present in U.S. adolescents and children. They consume fruits and vegetables at the same low rate as adults. According to an American Diabetes Association Consensus Report, youth rates of obesity and type 2 diabetes are also rising in the U.S.

Objective 1 - By 2010, reduce cardiovascular disease deaths to no more than 100 per 100,000 population. (Baseline: 127.5 in 1997; Age-adjusted to 1940)

Objective 2 - By 2010, reduce stroke deaths to no more than 20 per 100,000 population. (Baseline: 25.2 in 1997; Age-adjusted to 1940)

Action Steps

- ⇨ Provide interventions that increase the proportion of adults, youth, and children who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.
- ⇨ Provide interventions that increase the proportion of adults, youth, and children who consume a healthy diet following *Dietary Guidelines for Americans* (2000).
- ⇨ Provide interventions that increase the proportion of adults who know their blood pressure and cholesterol and are attempting to reduce and control these levels if they are elevated.

Partners

American Heart Association (Maryland Affiliate) • Baltimore Alliance for the Prevention and Control of Hypertension and Diabetes • Delmarva Foundation for Medical Care • Maryland Health Care Commission • Johns Hopkins University • Maryland Association of County Health Officers • Maryland Chapter of the American Cancer Society • Maryland Department of Health and Mental Hygiene (DHMH) • Maryland Hospital Association • Maryland Nurses Association • Maryland Local Health Departments • Maryland Office on Aging • Maryland State Advisory Council on High Blood Pressure and Related Risk Factors • Maryland State Advisory Council on Physical Fitness • Maryland State Department of Education • Med Chi–the Maryland State Medical Society • Morgan State University • Network to Improve Community Health • Office of Chronic Disease Prevention • University of Maryland, Baltimore County • Veterans Administration Medical Center • Women's Health Promotion Council

Related Reports

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Cross-Reference Table for Heart Disease and Stroke

See Also

Cecil County 180